REMARKS

Claims 1-3 and 5-14 are pending in this application. By this Amendment, claims 1, 3, 6, 9 and 14 are amended, and claim 4 is canceled. No new matter is added. Support for the claim amendments can be found in the original specification and claims. For example, support for the amendments to claim 1 may be found on page 11, line 16 to page 12, line 4, page 25, line 22 to page 26, line 5 and Example 1 of the present specification, and support for the amendments to claim 6 may be found on page 10, lines 19-21 of the present specification.

I. Rejections Under 35 U.S.C. §112, second paragraph

Claims 3, 6, 9 and 14 were rejected under 35 U.S.C. §112, second paragraph as allegedly being indefinite. This rejection is respectfully traversed.

Claim 3 is amended by replacing "including 0 to 2.5 mol% (note that 0 is excluded)" with "including more than 0 mol% and 2.5 mol% or less." As such, claim 3 is definite.

Claim 6 is amended to recite "elements selected from Sc, Y, La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb and Lu." The specification describes that besides Sc and Y, the rare earth elements include 17 elements composed of a lanthanoid. See page 10, lines 19-21 of the specification. One of ordinary skill in the art would understand that the term lanthanoid includes Sc, Y, La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb and Lu. Applicants thus submit that claim 6 is definite.

Claim 9 was rejected as allegedly being unclear as to what is intended by "dry synthesis method." Applicants respectfully disagree with this allegation.

As recited in claim 9, the dry synthesis method is clear and one of ordinary skill in the art would understand such a dry synthesis method. Specifically, one of ordinary skill in the art understands that the dry synthesis method means calcinating in the solid phase to form a reaction with the materials, as recited in claim 9. Therefore, the dry synthesis method as recited in claim 9 is clear. As such, claim 9 is definite.

Claim 14 is amended to recite process steps, and thus clearly defines the subject matter of the claim. As such, claim 14 is definite.

For the foregoing reasons, Applicants respectfully submit that claims 3, 6, 9 and 14 are definite. Reconsideration and withdrawal of this rejection are respectfully requested.

II. Rejection Under 35 U.S.C. §102(a)/(e) or §103(a)

Claims 1, 3-5 and 9-14 were rejected under 35 U.S.C. §102(a) or (e) as allegedly being anticipated by or in the alternative, under 35 U.S.C. §103(a) as allegedly being obvious over U.S. Patent No. 6,617,273 (hereinafter Motoki).

Motoki discloses a non-reducing dielectric ceramic including Ca, Zr and Ti as metallic elements, the dielectric composition including $(Ca_{1-v-w}Sr_vBa_w)_k(Zr_{1-x-y}Ti_xHf_y)O_3$ as a primary material. Motoki fails to disclose that a main component material, a subcomponent material and a glass component material are collectively calcinated to create a solid phase reaction. That is, nowhere does Motoki teach or suggest calcinating a main component material, a subcomponent material and a glass component material together in one step as recited in the present claims.

Instead, Motoki teaches that first primary materials (main component materials) are calcined alone, then secondary materials (subcomponent materials) are added into the calcined primary materials and then the materials are fired. See column 4, line 29 to column 6, line 44.

Furthermore, Motoki teaches away from simultaneously calcining the main component material, the subcomponent material and the glass component material as recited in the present claims. Instead, Motoki teaches that simultaneously calcining the main component material, the manganese dioxide (MnO_2) (corresponding to the first subcomponent material) and the silicon dioxide (SiO_2) (corresponding to the glass component material) is not preferred. For example, see column 1, lines 45-65. Thus, one of ordinary

skill in the art would not have been motivated to modify the teachings of Motoki in order to simultaneously calcinate the main component material, the subcomponent material and the glass component material, as required in the present claims. Rather, according to the teachings of Motoki, a person of ordinary skill in the art would avoid such simultaneous calcinating.

Collectively calcinating the main component, the subcomponent material and the glass component material to create a solid phase reaction makes it possible to reduce the steps required during production and improves the temperature dependency of the dielectric loss (tan δ), and the shrinkage curve at sintering (TMA). Specifically, the effects of the improvement in temperature dependency of the dielectric loss (tan δ) are seen, for example, in Example 6 of the present specification. Also, see page 56, line 17 to page 60, line 25, Table 11 and Table 12 of the present specification.

Further, when the shrinkage curve at sintering (TMA) is made gentle, the requirement of a two-step reaction can be effectively prevented. Thus, cracks and delamination are avoided when cofiring the dielectric composition with internal electrodes, and as such the product yield can be improved. See page 44, line 16 to page 45, line 6 of the present specification.

As such, Motoki does not teach or suggest simultaneously calcinating a main component material, a subcomponent material and glass component material together in one step as required in the present claims.

For the foregoing reasons, Applicants respectfully submit that Motoki does not teach or suggest the subject matter of claims 1, 3, 5 and 9-14. Reconsideration and withdrawal of this rejection are respectfully requested.

III. Rejection Under 35 U.S.C. §103(a)

Claims 1-14 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,118,648 (hereinafter Kojima) in view of Motoki.

Kojima relates to a dielectric ceramic material for compensation of temperature used in a laminated ceramic condenser using a base material as an inner electrode. Nowhere does Kojima teach or suggest collectively calcinating a main component material, a subcomponent material and a glass component material together to create a solid phase reaction. That is, Kojima also fails to teach or suggest calcinating a main component material, a subcomponent material and a glass component material together in one step as in the present application.

Further, Kojima fails to disclose a main component that includes the element Hf. Thus, nowhere does Kojima teach or suggest the subject matter of the present claims.

Moreover, even if Motoki were to have been combined with Kojima as alleged by the Patent Office, the presently claimed subject matter still would not have been achieved because Motoki does not remedy the deficiencies of Kojima. Specifically, Motoki also does not teach or suggest calcinating a main component material, a subcomponent material and a glass component material together in one step as recited in the present claims.

For the foregoing reasons, Applicants respectfully submit that Kojima and Motoki, alone or in combination, would not have led one of ordinary skill in the art to claims 1-3 and 5-14. Reconsideration and withdrawal of this rejection are respectfully requested.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-3 and 5-14 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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